IN THE CLAIMS

1. (previously presented) Apparatus for mixing of a chemical medium in gaseous or liquid state with a pulp suspension, comprising a housing having a wall that defines a mixing chamber, a first feeder for feeding the pulp suspension to the mixing chamber, a rotor shaft, that extends in the mixing chamber, a drive device for rotation of the rotor shaft, a rotor body, that is connected to the rotor shaft and arranged to supply kinetic energy to the pulp suspension, during rotation of the rotor shaft by the rotation of the drive device, such that turbulence is produced in a turbulent flow zone in the mixing chamber, a second feeder for feeding of the chemical medium to the mixing chamber, an outlet for discharging the mixture of chemical medium and pulp suspension from the mixing chamber, and a flow-restraining disk with one or more flow passages arranged in the outlet from the mixing chamber to temporarily increase the flow velocity of the pulp suspension when the pulp suspension passes the flow-restraining disk, the second feeder comprising at least one stationary feeding pipe that extends from the wall of the housing into the mixing chamber, including an outlet for the chemical medium in or in close vicinity to said turbulent flow zone, and the rotor body comprising a number of rotor pins which extend from the rotor shaft on the upstream side of the flow-restraining disk.

2. (previously presented) Apparatus according to claim 1, wherein the feeding pipe extends substantially radially to the rotor shaft in the mixing chamber.

3. (previously presented) Apparatus according to claim 1, wherein the feeding pipe extends substantially parallel to the rotor shaft in the mixing chamber.

4. (previously presented) Apparatus according to claim 3, wherein the rotor shaft extends through the feeding pipe,

whereby an annular outlet for the chemical medium is defined by the rotor shaft and the feeding pipe.

5. (previously presented) Apparatus according to claim 4, wherein the feeding pipe extends coaxially or eccentrically to the rotor shaft.

6. (canceled)

7. (canceled)

8. (canceled)

9. (previously presented) Apparatus according to claim 1, wherein the second feeder comprises a number of stationary feeding pipes.

10. (previously presented) Apparatus according to claim 9, wherein the feeding pipes extend substantially radially to the rotor shaft.

11. (previously presented) Apparatus according to claim 9, wherein the feeding pipes extend substantially parallel to the rotor shaft.

12. (previously presented) Apparatus according to claim 10 or 11, wherein the outlets of the feeding pipes are situated symmetrically or asymmetrically around the rotor shaft.

13. (canceled)

14. (canceled)

15. (canceled)

16. (previously presented) Apparatus according to claim 12, wherein the outlets of each of the feeding pipes are of a non-rotational symmetrical design and at least one of the outlets is provided with an orientation of rotation (V1) in relation to the center of the rotor shaft that differs from the corresponding orientations of rotation (V2) of the other outlets.

17. (canceled)

18. (canceled)

19. (previously presented) Apparatus according to claim 1, wherein each rotor pin is curved forward from the rotor shaft or backward relatively to the rotational direction of the rotor body.

20. (previously presented) Apparatus according to claim 1 or 19, wherein each rotor pin has a width (b), as seen in the rotational direction of the rotor body, that increases along at least a part of the rotor body in a direction against the rotor shaft.

21. (canceled)

22. (canceled)

23. (canceled)

24. (previously presented) Apparatus according to claim 1 or 9, wherein the rotor shaft is provided with an axially flow generating element.

25. (previously presented) Apparatus according to claim 24, wherein the axial flow-generating element comprises a number of blades, which are obliquely attached relative to the rotor shaft.

26. (previously presented) Apparatus according to claim 24, wherein the axial flow-generating element comprises a screw thread or a band thread, which extends along the rotor shaft.

27. (canceled)

28. (canceled)

29. (canceled)

30. (currently amended) Apparatus according to claim 1, wherein said flow-restraining disk includes a center shaft, and each flow passage extends obliquely from the up-stream side of the disk against the center shaft of the disk.

31. (canceled)

32. (canceled)

33. (currently amended) Apparatus according to claim 1 or 30, wherein the disk is circular or coaxial to the rotor shaft ~~(8, 104, 204, 300, 406, 502)~~.

34. (previously presented) Apparatus according to claim 1 or 30, wherein the disk is stationary arranged in the housing.

35. (previously presented) Apparatus according to claim 34, wherein the disk comprises a number of concentric rings which are coaxial with the rotor shaft and at least one radial bar that fixates the rings relative to each other and that are attached in the wall of the housing, whereby the flow passages are defined by the rings and the bar.

36. (previously presented) Apparatus according to claim 1 or 9, wherein the disk is integrated with the rotor shaft.

37. (cancelled).

38. (currently amended) Apparatus according to claim ~~37~~ 36, wherein the rotor body comprises an additional number of pins, that extend from the rotor shaft on the down-stream side of the disk, whereby the disk is also fixed to said additional pins ~~(202, 408, 506, 506')~~.

39. (currently amended) Apparatus according to claim ~~37~~36, wherein the disk comprises a number of concentric rings which are coaxial with the rotor shaft, and the rotor pins fixate the rings in relation to each other, whereby flow passages are defined by the pins and the rings.

40. (previously presented) Apparatus according to claim 36, wherein spacer elements are arranged between the disk and the rotor pins.